

REMARKS

The present invention relates to solar modules comprising at least one solar cell, a front side composed of a transparent polyurethane and a rear side and to a process for the production of such solar modules.

Claim 11 stands rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. The specific basis for this rejection is that there is insufficient antecedent basis for the limitation "the rear side". Applicants respectfully traverse this rejection.

Claim 11 depends from Claim 9. Claim 9 depends from Claim 1. Claim 1 includes the element "c) a rear side". The expression "the rear side" found in Claim 11 refers back to element c) of Claim 1 and is therefore supported by antecedent basis.

Withdrawal of this rejection is therefore requested.

Claims 1-6 and 9-11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson et al (U.S. Patent 4,830,038; hereinafter referred to as "Anderson et al '038") or Anderson et al (U.S. Patent 5,008,062; hereinafter referred to as "Anderson et al '062"). Applicants respectfully traverse this rejection.

Anderson et al '038 discloses a photovoltaic panel which is supported, sealed and isolated from the environment by being encased in a reaction injection molded elastomer which encapsulates the back, sides and "a portion" of the front side of the photovoltaic panel.

Anderson et al '038 does not disclose a solar module in which the front side is composed of transparent polyurethane. Applicants' claims require such a transparent polyurethane.

Anderson et al '038 does teach that the disclosed panels have a front transparent substrate but does **not** teach or suggest use of a transparent polyurethane layer. The only transparent substrate material specifically disclosed in this reference is glass. Polyurethanes are discussed only in the context of the reaction injection molded elastomer.

It is noted in the Office Action that the polyurethane elastomer encapsulate disclosed in this reference may contain fillers such as carbon black or glass fibers.

Applicants would point out, however, that a black polyurethane would not be a transparent polyurethane satisfying the greater than 85% transmission requirement for a transparent polyurethane. In fact, Applicants' specification teaches that such black polyurethanes are opaque. (See page 5, lines 7-11 of the specification.)

It is therefore clear from the teachings of the Anderson et al '038 reference itself, that polyurethanes were not contemplated as being suitable for the transparent layer of the disclosed modules.

Anderson et al '038 does not therefore anticipate Applicants' claimed invention.

Withdrawal of this rejection is therefore requested.

Anderson et al '062 discloses a method for fabricating the photovoltaic panels disclosed in Anderson et al '038.

As in Anderson et al '038, Anderson et al '062 does not disclose a solar module in which the front side is composed of transparent polyurethane or a method for producing such a module.

Applicants' claims which require a transparent polyurethane front side are not therefore anticipated by Anderson et al '062 for the same reasons discussed above with respect to Anderson et al '038.

Withdrawal of this rejection is therefore requested.

Claims 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al '038 and Anderson et al '062 as applied to Claim 1. Applicants believe that Claims 7 and 8 (rather than Claims 8 and 9) were intended to be the subject of this rejection in view of the fact that Claim 7 is directed to a textured surface and Claim 8 is directed to a rear side in the form of cooling fins while Claim 9 does not include either of these features which are specifically discussed in the Office Action. Applicants respectfully traverse this rejection.

As has already been discussed, neither Anderson et al '038 nor Anderson et al '062 teaches or suggests use of a transparent polyurethane as the front side of the modules disclosed therein.

Applicants' claimed invention which requires a transparent polyurethane front side is not therefore rendered obvious by the teachings of these references.

It is noted in the Office Action that neither reference teaches a back side with a textured surface or being in the form of cooling fins. It is "assumed" that such features would have been obvious to one skilled in the art at the time Applicants made their invention.

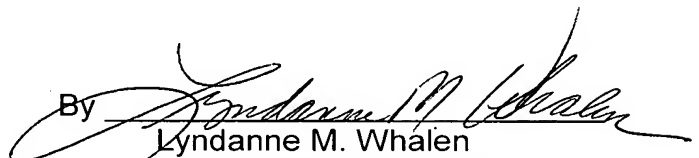
A rejection under 35 U.S.C. §103 must have a **factual** basis. Where the conclusion of obviousness is not supported by facts, it cannot stand. In re Warner and Warner 154 USPQ 173 (CCPA 1967).

The rejection of Claims 7 and 8 on the basis of the Anderson et al '038 and Anderson et al '062 references is not supported by facts. This rejection cannot therefore stand.

Withdrawal of this rejection is therefore requested.

In view of the above remarks, reconsideration and allowance of Claims 1-11 are respectfully requested.

Respectfully submitted,

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